

## Jeffrey Epstein, Science Philanthropist, Funds Essential Genomic Melanoma Research

Over the last year, the Jeffrey Epstein VI Foundation, helped fund a pivotal study in melanoma genomics. Led by the Melanoma Research Alliance (MRA) and the Hidary Foundation, the study is isolating the genetic mutation drivers for acral melanoma. Although a more rare form of melanoma, acral melanoma is 10% – 20% more fatal than other types and often falls under the radar for clinical research.

The Melanoma Research Alliance (MRA) is the largest private funder of melanoma research worldwide. The Alliance funds programs that show significant advances in the prevention, diagnosis, staging and treatment of melanoma, including progress in the causes of carcinogenesis, skin screening, biomarkers, imaging, immunotherapy, molecularly targeted therapy and combination therapy. Since 2007, the MRA has granted approximately \$49 million to more than 171 programs and 80 institutions in more than 14 countries.

“Genomic sequencing is much easier today,” Jeffrey Epstein noted, founder of the Jeffrey Epstein VI Foundation. “What once cost several million dollars can now be done for a few thousand dollars per patient.”

Scientists working on the acral project collected genetic data from more than a hundred patients with acral cancer, and analyzed whole exome, genome and RNA sequences, for the most comprehensive map of mutation markers.

“The genetic signature of each cancer is critical to developing a targeted inhibitor drug,” Jeffrey Epstein continued. “However, genetic data for each patient needs to be continually assessed in genetic real time, as the disease progresses and reacts to treatment.”

Indeed, over the last decade, the Jeffrey Epstein VI Foundation has supported mathematical research at the Program for Evolutionary Dynamics at Harvard University, which shows that cancer cells can evolve during inhibitor treatment leading to new forms of driving mutations. The Program also pointed out that not all mutations should be given equal importance, since only a small minority of them actually drives tumor growth. Thirdly the acral project as well as other research at the Program for Evolutionary Dynamics shows that sometimes multiple mutations can drive growth and so inhibitor treatment should not only be current but offered perhaps as a cocktail of targeted drugs.

Today, melanoma is the deadliest of all skin cancers. It also has the highest rate of occurrence as compared to other cancers in the US. The rate of long term survival however, has remained static over the last forty years at an appallingly low rate of 15%. **Worldwide, doctors diagnose about 160,000 new cases of melanoma yearly. In women, the most common site is the legs and melanomas in men are most common on the back**

The Jeffrey Epstein VI Foundation was established in 2000 by science investor Jeffrey Epstein. Jeffrey Epstein is the founder of the Program for Evolutionary Dynamics at Harvard University.

He is a former board member of the Mind, Brain and Behavior Committee at Harvard, a former board member of Rockefeller University and plays an active role at the Institute for Advanced Studies at Princeton and at the Santa Fe Institute.

**SOURCE:**

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